7.0 COMPLIANCE WITH REGULATORY STANDARDS AND REQUIREMENTS

This section includes a description of the primary regulations associated with the implementation of the preferred alternative aquatic disposal sites. Compliance with state standards and regulation, and federal standards and regulations for aquatic disposal are discussed as they relate to the preferred alternative.

7.1 Compliance with State Standards/Regulations - Aquatic Disposal

7.1.1 Wetlands Protection Act and Regulations (310 CMR 10.00)

The preferred alternative for Gloucester Harbor is a combination of aquatic disposal sites, G-Cell-1, G-Cell-2, G-Cell-3 and G-Cell-4, which are located in resource areas protected by the Massachusetts Wetlands Protection Act (WPA), specifically Land Under the Ocean (LUO) and Designated Port Areas (DPAs). The WPA is administered on the local level by the Conservation Commission, which implements the Massachusetts Wetlands Regulations at 310 CMR 10.00. A Notice of Intent (NOI) application to the Gloucester Conservation Commission will be required for disposal activities. An Order of Conditions (OOC) will be need to be issued by the Conservation Commission to permit the work. In addition, the City of Gloucester also has a local wetlands ordinance (see Section 7.3).

7.1.1.1 Designated Port Areas

The main federal channel into Gloucester Harbor, in which portions proposed preferred alternative sites G-Cell-1 and G-Cell-4 are located, is included within the Harbor's Designated Port Area. The Wetlands Regulations at 310 CMR 10.26 state that LUO in DPAs is likely to be significant to marine fisheries, storm damage prevention and flood control. LUO in DPAs often serves to provide support for coastal engineering structures such as seawalls and bulkheads, which have replaced natural protection for upland areas from storm damage and flooding. Projects affecting LUO in DPAs should not result in alteration of wave and current patterns so as to affect the stability of such structures.

Construction of the aquatic preferred alternative is not expected to result in adverse effects on marine fisheries caused by changes in water circulation. The bottom elevation at the disposal sites following construction of the disposal site, disposal activities and final placement of capping materials, will not be higher than the existing bottom elevation, and will likely be slightly recessed compared to existing bottom elevations. The effect of this recessed pit is expected to be reduced water column mixing with surrounding waters, and active sedimentation within the pit. In addition, the location of the CAD sites within the main navigation channel will also minimize localized changes in water circulation. Navigational channels often experience some degree of reduced mixing via stratification due to temperature or salinity gradients.

Water column depth at the disposal sites may play an important role in determining localized current velocities. Current velocities typically behave in a logarithmic relationship with water column depth. Therefore, currents further from the surface experience increasing frictional retardation, particularly as currents approach the sediment boundary layer. Given this phenomena, the preferred

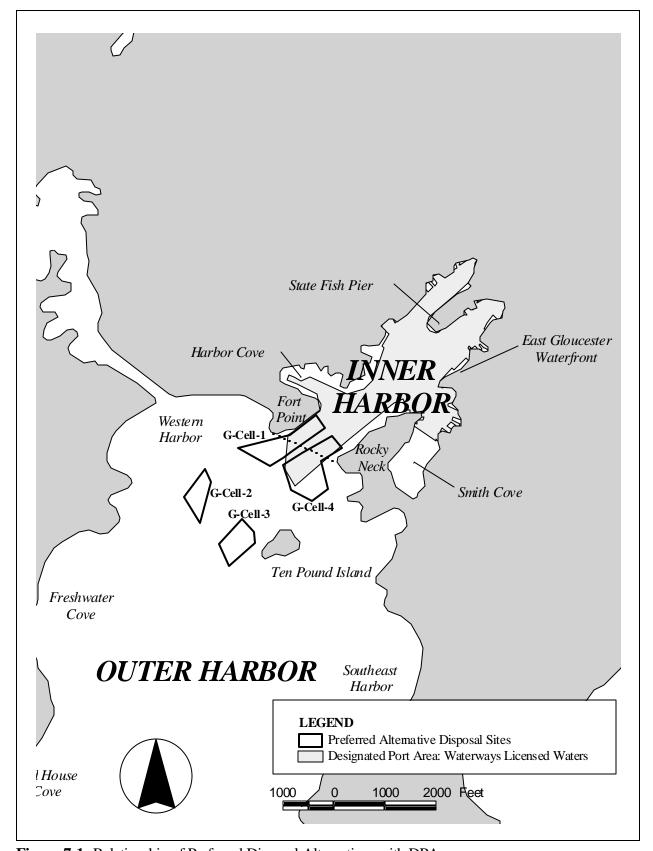


Figure 7-1: Relationship of Preferred Disposal Alternatives with DPA

alternative sites will be exposed to smaller current velocities and less potential sediment resuspension forces than sites at shallower depths. Coarser grained cohesive material also has the effect of greater frictional and gravitational forces holding the grains on the seabed. Thus a greater critical shear stress would be required to resuspend coarse grain cap material than fine grain silty sediments.

Reduced circulation may be beneficial from the standpoint of cap integrity since resuspension is less likely, but by the same effect this localized condition may also contribute to reduced water quality. Typically, the impact to water quality from dredged material disposal is short-term. These impacts typically include localized degradation in dissolved oxygen (DO), total suspended solids (TSS), pH, light penetration, and contaminant concentrations. Conditions typically return to ambient conditions within hours to days, depending on the amount, composition, and frequency of the disposed material. Total suspended solids may increase dramatically due to the entrainment of fine material in the water column. A plume typically forms whereby material may be advected short distances from the disposal site. A reduction in DO is typical as common constituents of sediments are oxidized and organic material is metabolized by microbial activity at the sediment-water interface. High suspended solid concentrations have the effect of attenuating ambient light, thereby reducing penetration. Finally, contaminants sorbed to sediment particles may be dissolved by the aquatic environment through physical disturbance of the material as the sediment stream is released from the scow. Modeling of dredged material disposal events will be performed for the FEIR to more conclusively determine short term local water quality impacts.

The preferred alternative sites have been located so as to provide a sufficient distance to the nearest coastal engineering structure. No impact on the stability of the harbor bottom that would affect the support of the nearby coastal engineering structures is expected, and therefore no adverse effect on any structure's ability to serve a storm damage prevention or flood control functions in the area.

7.1.1.2 Land Under the Ocean

Land Under the Ocean (LUO) is defined as "... land extending from the mean low water line seaward to the boundary of a municipality's jurisdiction and includes land under estuaries", within the Wetlands Regulations at 310 CMR 10.25(2). LUO is significant to the protection of marine fisheries and projects which affect LUO shall not cause adverse effects by altering the bottom topography so as to increase storm damage or erosion of coastal beaches, banks, dunes, of marshes. They must, among other things, also have no adverse effects on marine fisheries or wildlife habitat caused by alterations in water circulation, destruction of eelgrass beds, alterations in the distribution of sediment grain size, changes in water quality, or alterations of shallow submerged lands with high densities of polychaetes, mollusks, or macrophytic algae.

As described above, the aquatic preferred alternative sites are expected to have no adverse effect on marine fisheries caused by localized alterations in water circulation, sediment grain size or changes in water quality. The sites are not located in or adjacent to existing eelgrass beds.

Any impacts to benthic organisms at the disposal sites will be temporary and reversible. Immediately after disposal, the sites will be devoid of benthic populations, because the benthos will have been removed by overdredging or buried under disposed sediments.. The existing Organism-Sediment Index at the sites range from 9 (G-Cell-3 and G-Cell-4) to 11 (G-Cell-1 and G-Cell-2), all are greater than +6, indicative of a healthy benthic environment. However, most benthic species are capable of rapid dispersal and

colonization by means of planktonic larvae, and will quickly recolonize disturbed areas. The post-disposal benthic populations at the preferred alternative sites may be healthier and more diverse than those existing at present, since contaminated sediments at this in-harbor location will have been removed or buried and the new populations will be growing in the cleaner surface sediments.

7.1.1.3 Land Containing Shellfish

Land Containing Shellfish (LCS) is defined as "... land under the ocean, tidal flats, rocky intertidal shores, slat marshes or land under salt ponds when any such land contains shellfish", within the Wetlands Regulations at 310 CMR 10.34(2). LCS is found to be significant to the protection of marine fisheries, when such areas have been identified and mapped by the local conservation commission or by DEP in consultation with DMF. Documentation required for this designation includes recording the density of shellfish, size of the area and the historical and current importance of the area to commercial and recreational fishing.

The preferred alternative disposal sites are not located within areas that have been designated as areas of Land Containing Shellfish as specified in the Wetlands Protection Act and Regulations. As described above, the preferred alternative disposal sites are not expected to have an adverse effect on marine fisheries caused by localized alterations in water circulation, alterations in relief elevation, sediment grain size or changes in water quality.

7.1.2 Water Quality Certification (314 CMR 9.00)

The federal Clean Water Act gives states the authority to review projects that must obtain federal licenses or permits and result in a discharge to state waters, and requires a 401 Water Quality Certification to ensure that the project complies with state water quality standards and other appropriate requirements of state law. As a project which will require disposal of more than 5,000 cubic yards of dredged material, the DMMP will require a major dredge project certification (BRP WW 07) from the Department of Environmental Protection, Division of Wetlands and Waterways. The application will require a description of the proposed activity, detailed plan view and section, sediment analysis, and description of the characteristics of the proposed disposal site. The DEP may then put conditions on the dredging and disposal process designed to ensure compliance with water quality standards.

Per the provisions of 314 CMR 9.06(1), no discharge of dredged material will be allowed if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic environment than the proposed discharge. As documented in this DEIR, the proposed preferred alternative aquatic disposal sites in Gloucester Harbor are the least environmentally damaging practicable alternative for the aquatic disposal of UDM from the dredging projects in the Harbor.

Per the requirements of 314 CMR 9.06(2), the proposed discharge of dredged material will not be permitted unless the "appropriate and practical steps" are taken to minimize potential adverse impacts to land under water. The discharge of UDM and subsequent capping of the material at the aquatic preferred alternative disposal sites in Gloucester Harbor will result in the cleanup and capping of contaminated sediments at the site, and will result in a cleaner harbor bottom.

Per the requirements of 314 CMR 9.06(3), no discharge of dredged material will be allowed in Outstanding Resource Waters. The Proposed Preferred Alternative aquatic disposal sites in Gloucester Harbor are not located in Outstanding Resource Waters, as the water quality classification of Harbor is Class SB, due to the presence of combined sewer overflows in the harbor (314 CMR 4.06, Table 28).

As specified in 314 CMR 9.06(4), no discharge of dredged material to vernal pools, Outstanding Resource Waters within 400-feet of a drinking water supply reservoir and other areas designated in 314 CMR 4.06(1)(d), is allowed. The preferred alternative disposal sites in Gloucester Harbor are not located within any of those areas.

Finally, no discharge of dredged material will be allowed, per the provisions of 314 CMR 9.06(7), where the discharge meets the criteria for evaluation as specified above, but would result in "substantial adverse impacts" to the physical, chemical or biological integrity of surface waters of the Commonwealth. As described in this DEIR, disposal of UDM at the preferred alternative disposal sites in Gloucester Harbor will not result in substantial adverse impacts to surface waters in the Harbor.

7.1.3 MGL Chapter 91 (Public Waterfront Act) and Waterways Regulations (310 CMR 9.00)

Dredging activities to create a subaqueous disposal site for UDM, involving the subaqueous placement of unconsolidated material below the mean low water mark, requires a waterways permit, under the provisions of the Waterways Regulations at 310 CMR 9.05(2). Regulatory requirements for a Waterways permit are less stringent than those for a Waterways License, required for activities involving fill or structures in tidelands. Dredging activities for purposes such as navigation channels, boat basins, and other water-dependent purposes, and the subaqueous placement of unconsolidated material from those dredging projects below the mean low water mark, are considered a water-dependent project, under the provisions of 310 CMR 9.12(2)(a).

Waterways permits are issued only if certain requirements specified in the Waterways Regulations at 310 CMR 9.31 to 9.40 are met. Section 9.31 states that no permit shall be issued unless the project serves a "proper public purpose which provides greater public benefit than detriment to the rights of the public" in tidelands. As a water-dependent use project, the construction and use of the proposed preferred sites in Gloucester Harbor are presumed to meet this standard.

Because the proposed alternative sites require a Waterways permit, the provisions of 310 CMR 9.32, <u>Categorical Restrictions on Fill and Structures</u>, do not apply. As required under section 9.33, <u>Environmental Protection Standards</u>, construction and use of the proposed aquatic sites will comply with the applicable environmental regulatory programs of the Commonwealth, including: MEPA; the Wetlands Protection Act; the Massachusetts Clean Waters Act (MGL c. 21, s. 26-53 and the regulations for Water Quality Certifications, 314 CMR 9.00); Marine Fisheries Laws (MGL Chapter 130); and the Underwater Archaeological Resources Act (MGL c. 91 and c. 6, s. 179-180 and 310 CMR 22.00).

The preferred alternative sites are not located on private tidelands or filled Commonwealth tidelands and do not need to be deemed in compliance with the Zoning Ordinance. The preferred alternative disposal sites for Gloucester Harbor conform to the provisions of Harbor Plan, in that the construction and use of the sites for the disposal of UDM from the dredging projects in Harbor supports the stated goals of the

Harbor Plan to encourage identified maintenance and improvement dredging projects. The provisions of 310 CMR 9.34, <u>Conformance with Municipal Zoning and Harbor Plans</u>, are met by construction and use of the site.

The provisions 310 CMR 9.35, <u>Standards to Preserve Water-Related Public Rights</u>, are applicable to the proposed alternative sites in the Harbor. Construction and use of the disposal sites will not interfere with existing navigation. Use of the sites will also not significantly interfere with the public rights of free passage over the water, nor will it interfere with access to any city landings, easements or any other form of public access to Gloucester Harbor. Use of the preferred alternative sites will not significantly interfere with the public rights of fishing and fowling, and being a subaqueous site, will not interfere with on-foot passage, swimming or boating across the site.

Section 9.36, Standards to Protect Water-Dependent Uses, also applies to a portion of the preferred alternative sites in Harbor. Construction and use of the preferred alternative will result in the preservation of the availability and suitability of tidelands in Gloucester Harbor which are reserved as locations for maritime industrial uses, such as the Americold and Gorton's facilities, and other water-dependent uses in the Harbor. The sites are located so that there will be no interference with private access to littoral property from Gloucester Harbor, or to approach the Harbor from the private property. Use of the disposal sites will not result in disruption to existing water-dependent uses in Harbor, nor will it displace any existing water-dependent uses. The preferred alternative does not include fill or structures for nonwater-dependent or water-dependent non-industrial uses which preempt any water-dependent industrial use within the Gloucester Harbor DPA.

The provisions of section 9.37, <u>Engineering and Construction Standards</u>, will be met through the development of a sound engineering design for the aquatic preferred alternative disposal site. Construction and use of the proposed aquatic sites will not interfere with the ability to perform future maintenance dredging of the federal channel. The preferred alternative disposal sites are neither a Recreational Boating Facility nor a Marina, Boatyard or Boat Ramp, therefore the provisions of 310 CMR 9.39 and 9.39 do not apply.

Finally, the provisions of Section 9.40, <u>Standards for Dredging and Dredged Material Disposal</u>, also apply to the proposed alternative disposal sites in Gloucester Harbor. As two of the sites are located partially within the Harbor DPA, the prohibition on dredging to a mean low water depth greater than 20 feet in 310 CMR 9.40(1)(a) does not apply. The project also serves a commercial navigation purpose of federal and state significance, allowing the maintenance dredging of the main federal channel. The sites have been located so as to avoid shellfish beds, significant fisheries resources, and submerged aquatic vegetation such as eelgrass beds. Dredging activities necessary to construct the disposal sites will comply with the operational requirements specified in section 9.40(3), in that the depth of the disposal sites will be that necessary to accommodate the anticipated volume of UDM from Gloucester Harbor, therefore accommodating the navigational dredging needs of the harbor users.

Operational procedures will be established for use of the aquatic disposal sites which will meet the intent of the requirements specified in section 9.40(4), <u>Operational Requirements for Dredged Material Disposal</u> and 9.40(5), <u>Supervision of Dredging and Disposal Activity</u>. Section 9 of this DEIR outlines the monitoring and management measures to be implemented to confirm compliance with permit standards and long-term sequestering of UDM for the preferred alternative sites.

7.1.4 Coastal Zone Management (301 CMR 21.00)

This project will be required to complete a federal consistency certification for review by MCZM, describing the project and demonstrating consistency with MCZM's program policies and management principles. The MCZM Program Plan establishes program policies which embody coastal policy for the Commonwealth of Massachusetts. Recognition of these statements as Massachusetts coastal policy is formalized in Memoranda of Understanding (MOU) between MCZM and state environmental agencies. Projects subject to federal consistency review must be consistent with MCZM program policies. MCZM enforces its program policies through existing Massachusetts statutes and their implementing regulations.

In addition, the federally-approved MCZM Program Plan lists management principles. These policy statements are not currently enforceable through existing state statutes and regulations. They are published as guidance to proponents of activities in the Coastal Zone, representing MCZM's preferred policy direction. Program policies cover issue areas such as Water Quality, Habitat, Protected Areas, Coastal Hazards, Port and Harbor Infrastructure, Public Access, Energy, Ocean Resources, and Growth Management. Construction and use of the proposed preferred alternative aquatic disposal sites within Gloucester Harbor involve the MCZM policies on Water Quality and Habitat.

7.1.4.1 Water Quality

Water Quality Policy #1 - Ensure that point-source discharges in or affecting the coastal zone are consistent with federally approved state effluent limitations and water quality standards.

Water Quality Policy #2 - Ensure that nonpoint pollution controls promote the attainment of state surface water quality standards in the coastal zone.

Water Quality Policy #3 - Ensure that activities in or affecting the coastal zone conform to applicable state and federal requirements governing subsurface waste discharges.

Conformance: Use of the aquatic preferred alternative disposal sites in Gloucester Harbor will not be inconsistent with the Water Quality Policies. Disposal of UDM at a subaqueous site is not considered to be a subsurface discharge of waste.

7.1.4.2 Habitat

Habitat Policy #1 - Protect coastal resource areas including salt marshes, shellfish beds, dunes, beaches, barrier beaches, salt ponds, eelgrass beds, and fresh water wetlands for their important role as natural habitats.

Habitat Policy #2 - Restore degraded or former wetland resources in coastal areas and ensure that activities in coastal areas do not further wetland degradation but instead take advantage of opportunities to engage in wetland restoration.

Conformance: The proposed preferred sites has been located in an area of Gloucester Harbor which avoids protected coastal resource areas, including subtidal resources such as shellfish beds and eelgrass beds. There are no nearby salt marshes, dunes, beaches or barrier beaches, salt ponds or freshwater wetlands which would be affected by use of the disposal sites.

7.2 Compliance with Federal Regulations/Standards - Aquatic Disposal

7.2.1 Clean Water Act Section 404(b)(1) Analysis

The Code of Federal Regulations at 40 CFR 230 specifies guidelines for implementing the policies of Section 404(b)(1) of the federal Clean Water Act. The guidelines apply to discharges of dredged or fill materials into navigable waters, and their purpose is to restore and maintain the chemical, physical, and biological integrity of waters of the United States. The guidelines are divided into Subparts A through I. Subpart A is a general discussion of the guidelines. Compliance with more specific requirements is discussed below.

7.2.1.1 Subpart B - Compliance with the Guidelines

(a) The discharge shall not be permitted is there is a practicable alternative which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.

The Alternatives Analysis in Section 4 of this DEIR establishes that the preferred alternative is the least environmentally damaging of the alternatives considered.

(b) No discharge shall be permitted if it contributes to the violation of a state water quality standard, violates any applicable toxic effluent standard or prohibition under Section 307 of the Act, jeopardizes the continued existence of endangered or threatened species, or violates any requirement to protect any federally-designated marine sanctuary.

The proposed discharge shall not violate any of these requirements, as discussed in Section 6.1.2.3 (Water Quality) and Section 6.1.7 (Endangered or Threatened Species). The proposed discharge sites are more than two miles from the closest point of the nearest marine sanctuary, Stellwagen Bank, and will have no effect on it.

- (c) No discharge shall be permitted which will cause or contribute to significant degradation of the waters of the United States. This discharge will not cause such degradation, as explained in discussions of the Subparts C through F.
- (d) No discharge shall be permitted unless appropriate and practicable steps have been taken to minimize adverse impacts. Steps which will be taken to minimize these impacts are listed in the discussion of Subpart H.

7.2.1.2 Subpart C - Potential Impacts on Physical/Chemical Characteristics of the Aquatic Ecosystem

The discharge will not have a significant impact on physical and chemical characteristics of the ecosystem, as discussed in Section 6.2.1. Within this section, impacts on sediments are discussed in 6.2.1.1; impacts on suspended particulates/turbidity and water column impacts are in 6.2.1.3; and current patterns and water circulation in 6.2.1.2. The discharge will have no impact on normal water fluctuations, because the proposed disposal locations are in an open area where they will not interfere with tidal circulation. Since the discharge will not affect circulation and is not near an area where fresh and salt water mix, it will therefore not affect salinity gradients.

7.2.1.3 Subpart D - Potential Impacts on Biological Characteristics of the Aquatic Ecosystem

The disposal will have no impact on threatened and endangered species, as discussed in Section 6.2.6.4. There are no benthic endangered species in the area which could be covered or otherwise directly killed, and no habitat for these species occurs in any area influenced by the disposal.

The disposal will not permanently affect fish, crustaceans, mollusks, or other organisms in the aquatic food web. Any benthic organisms affected by disposal will be replaced by recolonizing organisms with aquatic larvae brought in by currents. The dredged material will be capped by clean sediments and therefore the recolonizing organisms will not be affected by toxins or heavy metals. Further discussion of impacts on aquatic organisms is contained in Sections 6.2.3. and 6.2.4.

Other wildlife such as mammals, birds, reptiles, and amphibians will not be affected by the disposal. The subsurface open water disposal will not affect their habitat, and any turbidity during disposal will be temporary. Wildlife impacts are further discussed in Section 6.2.6.

7.2.1.4 Subpart E - Potential Impacts on Special Aquatic Sites

Sanctuaries and refuges. The proposed disposal sites are in the outer harbor and are not in the vicinity of any designated sanctuaries or refuges.

Wetlands. The disposal sites, being in open water removed from shore in the outer harbor, will not affect any wetlands, as defined in these guidelines.

Mud flats. The proposed disposal sites are all subtidal and will not affect any intertidal mud flats.

Vegetated shallows. Although eelgrass beds do exist in Harbor, they are far enough away from the proposed disposal sites so that they will not be affected.

The other two special aquatic sites, coral reefs and riffle and pool complexes, are found only in tropical and subtropical seas and in freshwater streams, respectively, and are not a factor in this project area.

7.2.1.5 Subpart F - Potential Effects on Human Use Characteristics

As a subaqueous disposal site, this project will have no effect on municipal and private water supplies. The proposed disposal sites are not in an area of concentration or important migration or spawning areas for species important in recreational or commercial fisheries. Any impacts to the water column or substrate will be temporary and will have no effect on fisheries. Fishery impacts are further discussed in Sections 6.2.3 and 6.2.4.

Water-related recreation activities will not be affected by disposal. Even if disposal is conducted in the limited period of the year when recreational activities take place (which is not proposed), turbidity from disposal, the most probable impact, will be temporary and limited in scope.

The disposal of UDM at the proposed disposal sites will have no permanent aesthetic impacts because the subsurface disposal sites will not be visible. Temporary changes in appearance of the water will last no longer than the actual disposal operation.

There are no parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves which could be affected by disposal at the proposed sites.

7.2.1.6 Subpart G - Evaluation and Testing

Thorough testing of sediments proposed for dredging from Gloucester Harbor has been initiated and will be completed in accordance with all regulatory requirements. This includes physical and bulk chemistry testing, bioaccumulation tests, and evaluation of sediment transport and circulation in the vicinity of disposal sites. These results of the chemical and physical testing performed to date are presented in Sections 3.3.2, 4.8.2, 5.2.2, and 6.2.2 of this DEIR.

7.2.1.7 Subpart H - Actions to Minimize Adverse Effects

The following actions, among those listed in Subpart H of the Guidelines, will be taken to minimize averse effects from disposal:

- C Confining the discharge to minimize smothering of organisms;
- C Designing the discharge to avoid a disruption of periodic water inundation patterns;
- C Disposal of dredged material in such a manner that physicochemical conditions are maintained and the potency and availability of pollutants are reduced;
- C Selecting discharge methods and disposal sites where the potential for erosion, slumping, or leaching of materials into the surrounding aquatic ecosystem will be reduced;
- Capping in-place contaminated material with clean material or selectively discharging the most contaminated material first to be capped with the remaining material;

- C Avoiding changes in water current or circulation patterns which would interfere with the movement of animals;
- C Avoiding sites having unique habitat or other value, including habitat of threatened or endangered species;
- C Timing discharge to avoid spawning or migration seasons and other biologically critical time periods;

7.2.2 Rivers and Harbors Act of 1899, Section 10

Section 10 of the Rivers and Harbors Act of 1899, authorizes the USACOE to regulate virtually all obstructions to navigation within navigable waters the United States. This section defines navigable waters as "those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high water mark and/or are presently used, or have been used in the past or may be susceptible to use to transport interstate or foreign commerce". Because all the dredging projects identified in Gloucester Harbor are located in navigable waters, they will require a Section 10 permit from the USACOE.

7.2.3 Marine Protection, Research and Sanctuaries Act (MPRSA)

The Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972, also known as the Ocean Dumping Act, requires obtaining a permit for discharging some wastes (such as dredged material) and prohibits disposal of others (including radioactive wastes, chemical and biological warfare wastes). Three primary sections of the MPRSA apply to dredging projects:

- (1) Section 102 This section empowers the USEPA to establish the criteria for evaluating all dredged material for open ocean disposal. Section 102 also authorizes USEPA to designate ocean dredged material disposal sites such as MBDS.
- (2) Section 103 USACOE has the authority issue Section 103 permits, with concurrence from the USEPA, to dispose of dredged material in the open ocean. The permitting process includes public notice, public hearings, compliance with USEPA criteria, and the use of designated disposal sites, when possible.
- (3) Section 104 The USEPA and the USACOE have the authority to place conditions upon any aspect of ocean disposal operations to minimize negative environmental impacts. Typical conditions are imposed on the type and volume of dredged material, timing and location of disposal, and surveillance and monitoring of disposal activities.

The preferred alternative disposal sites for Gloucester Harbor will not require approval under the MPRSA. However, projects including the transportation and disposal of dredged material at MBDS will require testing and approval under the MPRSA.

7.2.4 Endangered Species Act - Section 7

The Endangered Species Act of 1973, protects federally listed and proposed threatened and endangered species. Section 7 of the Act requires the consultation with USFWS and NMFs and a opinion statement. This project is being coordinated with NMFS and the USFWS to determine whether any endangered or threatened species under their jurisdiction may be affected by use of the preferred alternative disposal sites in Harbor. To date, staff of NMFS and USFWS have participated in the review of the preliminary upland, aquatic and dewatering site screening processes and have indicated their concurrence with the results of the screening. As the final preferred alternative is selected in the FEIR, MCZM will continue to coordinate with both NMFS and USFWS staff in the Section 7 consultation process.

7.2.5 Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA)

The MSFCMA authorizes the NMFS to establish Essential Fish Habitat (EFH) areas. The general purpose of the act is to conserve productive fisheries that provide recreational and commercial benefit. EFH is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" and all of Harbor is classified as EFH.

Under section 305(b) of the Act, coordination between federal agencies is required for any work proposed within an EFH. The intent and procedures of the Act are very similar to the Endangered Species Act (ESA). MCZM has been coordinating with NMFS and USFWS in accordance with Section 7 of the ESA as well as the MSFCMA. Correspondence is included in Appendix B.

7.3 Compliance with City Standards/Regulations - Aquatic Disposal

7.3.1 Gloucester General Wetlands Ordinance (Section 12-10)

To strengthen the City's ability to protect wetland resources area, Gloucester has adopted a local wetlands protection ordinance. The purpose of the City of Gloucester's General Wetlands Ordinance (Section 12-10) is to protect the City's wetland resources by controlling activities deemed to have a significant effect either individually or cumulatively upon the following interests relevant to the DMMP including: prevention of pollution, protection of land containing shellfish, protection of fisheries and erosion and sediment control. As the preferred alternative for Gloucester Harbor is a combination of aquatic disposal sites, G-Cell-1, G-Cell-2, G-Cell-3 and G-Cell-4, which are located in a resource area protected by General Wetlands Ordinance, specifically Land Under the Ocean (LUO). The General Wetlands Ordinance is administered the Gloucester Conservation Commission. A Notice of Intent (NOI) application to the Gloucester Conservation Commission will be required for proposed disposal activities. Also, a Wetlands Permit will be need to be issued by the Commission to permit the work.